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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/672,738 | 09/28/2000 | Yukio Tanaka | SEL 216 | 7356 |

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Cook Alex McFarron Manzo
Cummings & Mehler Ltd
Suite 2850
200 West Adams Street
Chicago, IL 60606

EXAMINER

ALPHONSE, FRITZ

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2675

DATE MAILED: 09/23/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/672,738

Applicant(s)
Yukio Tanaka

Examiner
Fritz Alphonse

Art Unit
2675



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 2, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 10 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-2, 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Cairns (U.S. Pat. No. 6,437,767).

As to claim 1, Cairns (figs. 9, 18) show an active matrix display device comprising: a pixel portion ($m \times 2n$; note m data lines and $2n$ based on split scan lines) pixels in which each pixels element including at least one TFT (col. 8, lines 26-45) a source driver (i.e., data line driver circuit 55) for supplying video signals to $2n$ source signal lines; a first gate driver (53) for supplying selection signals to m first gate signal lines; and a second gate driver (54) for supplying selection signals to m second

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gate signal lines, wherein: the pixels connected to the source signal lines are supplied with the selection signals from the first gate signal lines; the pixels connected to the source signal lines are supplied with the selection signals from the second signal lines, the selection signal starts to be supplied to the second gate signal line while the selection signal is supplied to the first gate signal line; and the selection signal starts to be supplied to the first gate signal line while the selection signal is supplied to the second gate signal (col. 4, lines 28-60; col. 8, lines 26-67). Cairns teaches that the pixel portion, the source driver, the first gate driver and the second gate driver (i.e., monolithic driver circuits integrated on the same substrate as the display TFT's) comprise at least one TFT formed over a same substrate (col. 11, lines 26-35).

As to claim 2, the claim differs from claim 1 by the additional limitation "the selection signals are sequentially supplied to the first gate signal line G1L, the second gate signal line G1R, the first gate signal line G2L, the second gate signal line G2R". However, these limitations are disclosed by Cairns (see abstract; also note Cairns teaches that the scan line driver circuit is arranged so as to address the scan lines sequentially, col. 13, lines 1-6).

As to claims 23-24, method claims 23-24 correspond to apparatus claims 1 and 2. Therefore, they are analyzed as previously discussed in claims 1 and 2 above.

As to claims 25-26, the claims differ from claim 1 by the additional limitation "wherein the m first gate signal lines of the first gate driver are not connected to the m second gate signal lines of the second gate driver; the selection signal starts to be supplied to one of the gate signal line and the second gate signal line while the selection signal is supplied to the other one of the first gate signal

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line and the second gate line". However, these limitations are disclosed by Cairns (see figures 9 and 18; note in Cairns (figs. 9, 19), the scan line driver circuit is arranged so as to address the scan lines sequentially, col. 13, lines 1-6;).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cairns in view of Akebi (U.S. Pat. No. 5,825,342).

As to claims 3-10, Cairns does not teach about a projector comprising two to three display devices. However, this limitation is disclosed by Akebi (col. 5, lines 32-50; col. 10, lines 31-37).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cairns by specifically providing a projector including a plurality of liquid crystal displays, as disclosed by Akebi. By doing so, a projector can yield maximum contrast using a transmitting light.

5. Claims 11-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cairns in view of Yamazaki (U.S. Pat. No. 6,384,86).

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As to claims 11-22, Hebiguchi does not teach a head mount display, a computer, a video camera, a DVD player or a display device comprising a display device. However, these limitations are disclosed by Yamazaki (see figures 13A-j).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon the active matrix display as taught by Yamazaki. The motivation would have been a desire to use a liquid crystal display that is inexpensive to produce and a high degree of scattering.

Response to Arguments

6. Applicant's arguments filed 7/02/03 have been fully considered but they are not persuasive.

In order to advance the prosecution of the application, Applicant has amended claims 1, 2 and 23-26 to recite "wherein each of the pixel portion, the source driver, the first gate driver and the second gate driver comprises at least one TFT formed over a same substrate." However, this limitation as recited is clearly disclosed by Cairns (see figure 9; col. 11, lines 26-35).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse whose telephone number is (703) 308-8534.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras, can be reached at (703) 305-9720.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

F. Alphonse

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September 18, 2003



STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600